CONTRACT CHANGE ORDER MEMORANDUM

TO: Tony Anziano, Program Manager /						E.A.	04 - 0120F4		
					CO-RT	CO-RTE-PM SF-80-13.2/13.9			
FROM: Darryl Schram, Senior TE					FED	. NO.	No		
CCO#: 357	SUPPL	EMENT#: 0	Category	y Code: CHPT	CONTING	CONTINGENCY BALANCE (Incl. this change) \$24,077,406.42		nge) \$24,077,406.42	
COST: \$542,588.00 INCREASE ☑ DECREASE □					HEADQUARTERS APPROVAL REQUIRED? ✓ YES ☐ NO			:D? ✓ YES ☐ NO	
SUPPLEMENTAL FUNDS PROVIDED: \$0.00					IS THIS REQUEST IN ACCORDANCE WITH ✓ YES NO ENVIRONMENTAL DOCUMENTS?				
CCO DESCRIPTION:					PROJEC	PROJECT DESCRIPTION:			
W2 Cable Tie Down (SDI)						CONSTRUCT SELF-ANCHORED SUSPENSION BRIDGE			
Original Contract Time:		Time Adj. This Cha	Change: Previously Approved C Time Adjustments:		cco		tage Time Adjusted: ng this change)	Total # of Unreconciled Deferred Time CCO(s): (including this change)	
2490	Day(s)	0	Day(s)	501 D	ay(s)		20 %	32	

DATE: 3/20/2014

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THIS CHANGE ORDER PROVIDES FOR:

At Pier W2 cable tie down pipes:

- · Grout each High-Density Polyethylene (HDPE) pipe with non-shrink grout.
- Reattach HDPE sleeves and upper dresser couplers that slipped and replace any broken parts.
- · Furnish and install cable tie down separators.
- Replace upper dresser coupler bolts with new bolts. All bolts in the upper dresser coupler shall be hot-dip galvanized in accordance with ASTM F2329 or mechanical galvanized in accordance with ASTM B695.
- · Paint the upper dresser couplers and separators.

The designed, furnished, and installed cable tie down system met the requirements of Special Provisions Section 10-1.44 "Cable Tie Down"; however the upper dresser couplings have loosened due to wind loading and vibrations which may result in premature strand failure if not repaired.

Multiple CCOs will be established to provide compensation to the Prime Contractor and each of the affected Subcontractors to repair and revise the Pier W2 cable tie down system. The following CCOs have been identified:

- CCO 357 "W2 Cable Tie Down (SDI)" provides for work performed by Schwager Davis Inc.
- CCO 360 "W2 Cable Tie Down (ABF Field Work)" provides for access, support, supervision, and installation of hanger brackets by the Prime Contractor.
- CCO 362 "W2 Cable Tie Down (XKT)" provides for furnishing hanger brackets by XKT Fabrication.

This change order (CCO 357) will reattach the dresser couplers and HDPE pipes to restore the tie down system to the Submittal 85 "Cable Tie-Down Bearing" approved and installed design. Then grout will be installed around the cables to reduce vibrations. Grout will also be placed at the base of the tie down anchorage to ensure water flows away from the anchorage. Cable separators will be added to increase lateral support.

Neither Special Provisions Section 10-1.44 nor Contract plan sheets 520-523 provide requirements for the bolts used in the cable tie down system. Approved Submittal 85 included material data sheets that stated the furnished upper dresser couplers would be Baker Series 220 couplers with electrogalvanized bolts and nuts. Electrogalvanization is not adequate for the marine environment and the bolts have corroded. The corroded bolts and nuts will be replaced with new bolts of the same type with changes to the galvanization. The upper dresser couplers will also be painted to provide additional resistance to corrosion.

The total cost of this change order is \$542,588.00 lump sum, which can be financed from the contingency fund. A detailed cost estimate is on file.

No time adjustment is warranted as this change order does not affect the controlling operation.

This change order has concurrence from William Casey (Supervising TE), Rich Foley (HQ Oversight), Wenyi Long (Bridge Design), Jing Chen (District Design), and Lina Ellis (Maintenance).

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CCO: 357 - 0

DATE: 3/20/2014

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CONCURRED BY:			ESTIMATE OF COST				
Construction Engineer:	William Casey, Sup TE	Date 3/14/14		THIS REQUEST	TOTAL TO DATE		
Bridge Engineer:	CT Oversight, Wenyi Long, P.E	. Date 10/14/13	FORCE ACCOUNT	\$0.00	\$0.00		
Project Engineer:	District Design, Jing Chen	Date 10/14/13		\$0.00 \$542,588.00	\$0.00 \$542,588.00		
Project Manager:		Date	ADJUSTMENT	\$0.00	\$0.00		
FHWA Rep.:		Date	TOTAL	\$542,588.00	\$542,588.00		
Environmental:		Date	FEDERAL PARTICIPATION				
Other (specify):	HQ, Rich Foley	Date 3/18/14	PARTICIPATING NON-PARTICIPATIN	PARTICIPATING IN	PART NONE NONE		
Other (specify):	Struct. Maint, Lina Ellis	Date 10/17/13		ding Source or P.I.P. type)			
District Prior Approval By:		Date	CCO FUNDED PER	(N	CO FUNDED AS FOLLOWS		
HQ (Issue Approve) By:		Date	FEDERAL FUNDING	SOURCE	PERCENT		
Resident Engineer's Signature:		Date					
De		3/20/14		=			